Angle of Elevation & Depression Trig Worksheet

1. Brian's kite is flying above a field at the end of 65 m of string. If the angle of elevation to the kite measures 70°, how high is the kite above Brian's head?

2. From an airplane at an altitude of 1200 m, the angle of depression to a building on the ground measures 28°. Find the distance from the plane to the building.

3. From a point on the ground 12 ft from the base of a flagpole, the angle of elevation of the top of the pole measures 53°. How tall is the flagpole?

4. From a plane flying due east at 265 m above sea level, the angles of depression of two ships sailing due east measure 35° and 25 °. How far apart are the ships?

5. A man flies a kite and lets out 100 feet of string. The angle of elevation of the string is 52^{o}. How high off the ground is the kite? How far away is the man from the spot directly under the kite?

6. From the top of a vertical cliff 40 m high, the angle of depression of an object that is level with the base of the cliff is 34º. How far is the object from the base of the cliff?